Remarks

The specification has been amended to correct obvious typographical errors and to insert sequence identifiers corresponding to sequences disclosed in the sequence listing. More particularly, references to SEQ ID NOS:1-2 have been added, and an incorrect reference to SEQ ID NO:18 has been deleted. The amendments are fully supported by the specification and claims as originally filed, and thus no new matter has been added.

In the Communication (Paper No. 11), the Examiner indicates that it "remains unknown what SEQ ID NO:15 represents." Applicants note that due to an apparent clerical error, the specification as originally filed contained 18 sequences, but made no reference to a SEQ ID NO:15. Further, the Substitute Sequence Listing filed with the Preliminary Amendment of October 18, 1998 numbered the eighteen sequences consecutively, including SEQ ID NO:15. Thus, SEQ ID NOS:15-18 in the Substitute Sequence Listing actually corresponded to SEQ ID NOS:16-19 in the specification.

To correct this situation, since SEQ ID NO:15 has no associated sequence, the Second Substitute Sequence Listing filed on February 28, 2001 contains a "000" for SEQ ID NO:15. *See* 37 C.F.R. § 1.821(c) ("If no sequence is present for a sequence identifier, the code "000" must be used in place of the sequence."). Attorney for Applicants contacted the Examiner by telephone on April 17, 2001, and the Examiner confirmed that the above procedure was proper in this case. Accordingly, Applicants respectfully submit that it is clear that SEQ ID NO:15 merely represents an accidentally-omitted sequence identifier, and that the specification as amended and the Second Substitute Sequence Listing fully comply with 37 C.F.R. § 1.821.

Conclusion

Entry and consideration of the above amendments and remarks is respectfully solicited. The Examiner is invited to call the undersigned at the phone number provided below if any further action by Applicant would expedite the examination of this application.

Applicants believe that there are no fees due in connection with the filing of this paper. However, should a fee be due, please charge the fees to our Deposit Account No. 08-3425. If a fee is required for an extension of time under 37 C.F.R. § 1.136, such an extension is requested and the appropriate fee should also be charged to our Deposit Account. A duplicate of this page is enclosed.

Respectfully submitted,

Dated: April 17, 2001

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Enclosures

VIA HAND DELIVERY APRIL 17, 2001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: **HASTINGS et al.**

Application Serial No.: 09/170,042 Art Unit: 1647

Filed: October 13, 1998 Examiner: Hayes, R.

For: **HUMAN NEURONAL ATTACHMENT FACTOR-1** Attorney Docket No.: PF226D1

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

The section entitled "Brief Description of the Figures" at page 4, lines 8-28, amended in the Preliminary Amendments filed February 28, 2001 and October 18, 1998, has been rewritten as follows:

Brief Description of the Figures

The following drawings are illustrative of embodiments of the invention and are not meant to limit the scope of the invention as encompassed by the claims.

Figure 1 is an illustration of the cDNA (SEQ ID NO:1) and corresponding amino acid sequence (SEQ ID NO:2) of the polypeptide of the present invention. Sequencing was performed using a 373 automated DNA sequencer (Applied Biosystems, Inc.). The putative leader sequence region is underlined.

Figure 2 is an amino acid sequence comparison between the polypeptide of the present invention (bottom line) (SEQ ID NO:2) and rat F-spondin (rFSP) (top line) (SEQ ID NO:7).

Figure 3 is an amino acid sequence comparison between the cell adhesion sequence of NAF-1 (FLP-TSR; SEQ ID NO:19 ~~NOS:18-19~~) and the six cell adhesion sequences of

rat F-spondin (FSR-TSR-1, -2, -3, -4, -5, and -6; SEQ ID NOS:8-13, respectively). Also shown is a TSR consensus sequence shown in the sequence listing as SEQ ID NO:14.

Figure 4 shows an analysis of the NAF-1 amino acid sequence (SEQ ID NO:2). Alpha, beta, turn and coil regions; hydrophilicity and hydrophobicity; amphipathic regions; flexible regions; antigenic index and surface probability are shown. In the "Antigenic Index - Jameson-Wolf" graph, the positive peaks indicate locations of the highly antigenic regions of the NAF-1 protein, i.e., regions from which epitope-bearing peptides of the invention can be obtained.